PATENT ABSTRACTS OF JAPAN

(11)Publication number : 2003-153322
(43)Date of publication of application : 23.05.2003

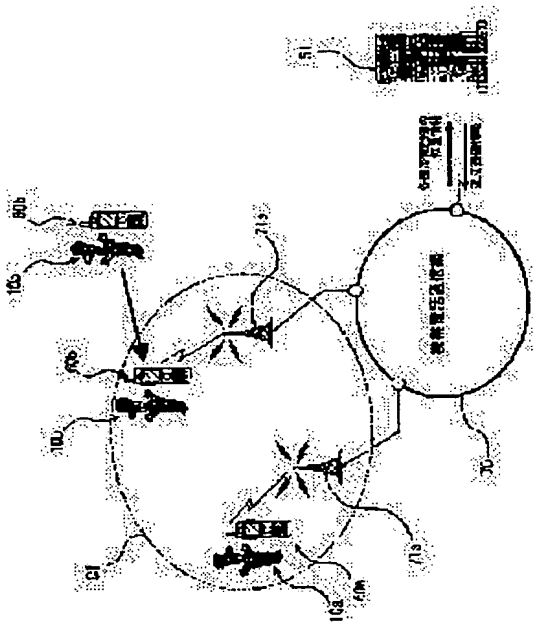
(51)Int.Cl. H04Q 7/20
H04Q 7/34
H04Q 7/38

(21)Application number : 2001-351486
(22)Date of filing : 16.11.2001

(71)Applicant : J-PHONE CO LTD
(72)Inventor : TACHIKA AKIHIKO

(54) COMMUNICATION SERVICE METHOD, COMMUNICATION SERVICE SUPPORTING DEVICE, AND PROGRAM THEREOF

(57)Abstract:
PROBLEM TO BE SOLVED: To provide a communication service method, a communication service supporting device, and a program which can materialize a new added value service where the appeal of one's own existence is possible among the users of portable telephones.
SOLUTION: In this communication service method which informs the user of each mobile information terminal that a plurality of fellow mobile information terminals are close to one another, a plurality of telephones 60a and 60b where information is performed with each other are registered in advance, and the positional information of the portable telephones 60a and 60b is acquired. When at least the two of plural portable telephones 60a and 60b registered exist in the same area C1, the users 10a and 10b of the portable telephones 60a and 60b existing in the area C1 are informed that the fellow portable telephones are close to each other.



LEGAL STATUS

[Date of request for examination] 24.05.2004
[Date of sending the examiner's decision of rejection]
[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]
[Date of final disposal for application]
[Patent number]
[Date of registration]

[Number of appeal against examiner's decision of rejection]

[Date of requesting appeal against examiner's decision of rejection]

[Date of extinction of right]

* NOTICES *

CLAIMS

[Claim(s)]
[Claim 1] It is the communication service approach which notifies the user of each migration information terminal of two or more migration information terminals being close. Register two or more migration information terminals with which this advice is performed mutually, acquire the positional information of this migration information terminal, and when at least two exist in the same area of two or more migration information terminals this registered The communication service approach characterized by notifying the user of the migration information terminal which exists in this area of migration information terminals being close.
[Claim 2] The communication service approach characterized by performing the above-mentioned advice in the advice format specified by the above-mentioned user in the communication service approach of claim 1.
[Claim 3] The communication service approach characterized by carrying out by summarizing this advice to these two or more users in the communication service approach of claim 1 when the objects of the above-mentioned advice are two or more users.
[Claim 4] each migration information terminal by which registration is carried out [above-mentioned] in the communication service approach of claim 1 -- every migration information terminals of other -- or the communication service approach characterized by the ability to switch whether the above-mentioned advice about these other migration information terminals is received about these all other migration information terminals.
[Claim 5] each migration information terminal by which registration is carried out [above-mentioned] in the communication service approach of claim 1 -- every migration information terminals of other -- or the communication service approach characterized by the ability to switch whether the above-mentioned advice to the user of these other migration information terminals is permitted about these all other migration information terminals.
[Claim 6] two or more areas of every in which each migration information terminal of the above-mentioned advice by which registration is carried out [above-mentioned] in the communication service approach of claim 1 is possible -- or a ****** [receiving this advice about other migration information terminals about these two or more areas of all] -- or the communication-service approach characterized by the ability to be able to switch whether this advice to these other migration information terminals is permitted.
[Claim 7] The communication service approach characterized by each migration information terminal by which registration is carried out [above-mentioned] making each user recognize that it is in the condition that the above-mentioned advice may be given to the user of other migration information terminals in claims 1, 2, 3, 4, and 5 or the communication service approach

of 6.
[Claim 8] The communication service approach characterized by what is notified in accordance with the connection related information for connecting with other migration information terminals which exist in the above-mentioned area in the case of the above-mentioned advice, and communicating in claims 1, 2, 3, 4, 5, and 6 or the communication service approach of 7.
[Claim 9] It is communication service exchange equipment for supporting the communication service which notifies the user of each migration information terminal of two or more migration information terminals being close. The terminal registration information about each of two or more migration information terminals with which this advice is performed mutually, An information storage means to associate and memorize the positional information about the area where this migration information terminal exists, A positional information acquisition means to acquire the positional information about the area where this migration information terminal exists, A judgment means to judge whether at least two exist in the same area of two or more migration information terminals this registered based on the positional information acquired with this positional information acquisition means, When at least two judge with existing in the same area of this migration information terminal with this judgment means Communication service exchange equipment characterized by having an advice information of contiguity transmitting means to transmit the advice information of contiguity for notifying a user of migration information terminals being close to the migration information terminal which exists in this area through a communication line.
[Claim 10] Communication service exchange equipment with which the above-mentioned advice information of contiguity is characterized by being the information for performing the above-mentioned advice in the advice format specified by the user of the above-mentioned migration information terminal in the communication service exchange equipment of claim 9.
[Claim 11] Communication service exchange equipment characterized by constituting the above-mentioned advice information of contiguity transmitting means so that the above-mentioned advice information of contiguity may be summarized to two or more migration information terminals and it may transmit in the communication service exchange equipment of claim 9, when the objects for transmitting of the above-mentioned advice information of contiguity are two or more migration information terminals.
[Claim 12] The communication-service exchange equipment carry out that the above-mentioned information-storage means is constituted, and the above-mentioned advice information [of contiguity] transmitting means is constituted so that this advice information of contiguity may transmit selectively based on these advice existence tbe data so that it relates with the above-mentioned terminal registration information and the advice existence tbe data which specify whether the above-mentioned advice information of contiguity about other migration information terminals receives in the communication-service exchange equipment of claim 9 may memorize as the description.
[Claim 13] The communication-service exchange equipment carry out that the above-mentioned information-storage means is constituted, and the above-mentioned advice information [of contiguity] transmitting means is constituted so that this advice information of contiguity may transmit selectively based on these advice permission-or-denial tbe data so that it relates with the above-mentioned terminal registration information and the advice permission-or-denial tbe data it specifies [whether transmission of the above-mentioned advice information of contiguity over other migration information terminals permits and] in the communication-service exchange equipment of claim 9 may memorize as the description.

[Claim 14] the communication service exchange equipment of claim 9 -- setting -- two or more areas of every which can transmit the above-mentioned advice information of contiguity -- or about these two or more areas of all At least one side of the advice permission-or-denial tbe data which specify whether transmission of this advice information of contiguity over the advice existence tbe data which specify whether this advice information of contiguity about other migration information terminals is received, and other migration information terminals is permitted Relate with the above-mentioned terminal registration information, and so that it may memorize, and the above-mentioned information storage means may be constituted and this advice information of contiguity may be selectively transmitted based on either [at least] these advice existence tbe data or these advice permission-or-denial tbe data Communication service exchange equipment characterized by constituting the above-mentioned advice information of contiguity transmitting means.
[Claim 15] The communication-service exchange equipment characterized by to have an advice condition recognition information transmitting means transmit the advice condition recognition information for making each user recognize that it is in the condition that the above-mentioned advice information of contiguity may be transmitted to other migration information terminals, in claims 9, 10, 11, 12, and 13 or the communication-service exchange equipment of 14 to a migration information terminal through a communication line.
[Claim 16] In claims 9, 10, 11, 12, 13, and 14 or the communication service exchange equipment of 15 So that the connection related information for connecting with the above-mentioned migration information terminal, and communicating may be related with the above-mentioned terminal registration information and may be memorized Communication service exchange equipment characterized by constituting the above-mentioned information storage means, and constituting the above-mentioned advice information of contiguity transmitting means so that the connection related information for connecting with the migration information terminal which exists in the above-mentioned advice information of contiguity in the above-mentioned area, and communicating may be included.
[Claim 17] The program for being the program executed by computer used for claims 9, 10, 11, 12, 13, 14, and 15 or the communication service exchange equipment of 16, and operating this computer as at least one of each of the means in the above-mentioned communication service exchange equipment.

[Translation done.]

* NOTICES *

DETAILED DESCRIPTION

[Detailed Description of the Invention]
[0001]
[Field of the Invention] This invention relates to the communication service exchange equipment and the program which are used for this approach at the communication service approach which notifies the user of each migration information terminal of migration information terminals, such as a portable telephone, being close, and a list.
[0002]
[Description of the Prior Art] Conventionally, as the communication service approach using migration information terminals, such as a portable telephone, the method of providing the user and the 3rd person of the migration information terminal with the positional information of a migration information terminal is learned (for example, refer to JP,11-146080,A). By this approach, it can grasp in which area the migration information terminal which he is using is located, or in which area other users' migration information terminal is located now by receiving the above-mentioned positional information.
[0003]
[Problem(s) to be Solved by the Invention] When what owns the migration information terminal of each other which can communicate also between a friend or an acquaintance by the increment in the user of a migration information terminal is increasing in recent years, among the users of a migration information terminal ** Contingent expectation of appeal of one's existence, ** encounter, etc., the cause of ** communication, ** A new value added service which can realize a function like the tactile sense that the friend who is the sense of security of being together with everybody, and near the ** finds it etc. is desired increasingly. However, in order to realize offer of such a value added service, it was inadequate just to offer the positional information of a migration information terminal as indicated by above-mentioned JP,11-146080,A etc.
[0004] This invention is made under the above circumstances and the object is offering the communication service approach, the communication service exchange equipment, and the program which can realize the new value added service among the users of a migration information terminal which can advertize its existence.
[0005]
[Means for Solving the Problem] In order to attain the above-mentioned object, invention of claim 1 It is the communication service approach which notifies the user of each migration information terminal of two or more migration information terminals being close. Register two or more migration information terminals with which this advice is performed mutually, acquire the

positional information of this migration information terminal, and when at least two exist in the same area of two or more migration information terminals this registered It is characterized by notifying the user of the migration information terminal which exists in this area of migration information terminals being close. Moreover, invention of claim 9 is communication service exchange equipment for supporting the communication service which notifies the user of each migration information terminal of two or more migration information terminals being close. The terminal registration information about each of two or more migration information terminals with which this advice is performed mutually, An information storage means to associate and memorize the positional information about the area where this migration information terminal exists, A positional information acquisition means to acquire the positional information about the area where this migration information terminal exists, A judgment means to judge whether at least two exist in the same area of two or more migration information terminals this registered based on the positional information acquired with this positional information acquisition means, When at least two judge with existing in the same area of this migration information terminal with this judgment means It is characterized by having an advice information of contiguity transmitting means to transmit the advice information of contiguity for notifying a user of migration information terminals being close to the migration information terminal which exists in this area through a communication line.

[0006] Above "a migration information terminal", in addition, a PDC (Personal Degital Cellular) method, A GSM (Global System for Mobile Communication) method, Portable telephones, such as a TIA (Telecommunications Industry Association) method, The portable telephone standardized by IMT(International Mobile Telecommunications)-2000, The information terminal which added the cellular-phone module besides telephones, such as PHS (Personal Handyphone Service) and a land mobile radiotelephone, is also included. Moreover, if the bidirectional communication link which minded the communication network among the users of other migration information terminals is possible, this invention is applicable also to migration information terminals, such as a music terminal which can download and hear TV of the personal computer of a mobile mold, PDA (Personal Digital (Data) Assistants), car navigation equipment, the terminal for ITS (Intelligent Transport Systems), and a pocket mold, a game machine, and a music content. Moreover, the still picture or animation displayed on the display of a migration information terminal may notify the above "migration information terminals are close", and sounds, such as voice outputted from the loudspeaker of a migration information terminal, can also notify it. Moreover, you may notify by starting a specific application program. Moreover, the above "positional information" may be directly acquired from a migration information terminal, and you may make it acquire it from the positional information management equipment which manages the positional information of each migration information terminal.

[0007] With the communication service approach of claim 1, and the communication service exchange equipment of claim 9, when [of two or more migration information terminals registered beforehand] at least two exist in the area identically, the user of the migration information terminal which exists in this area can be notified of migration information terminals being close. By this advice, the user of each migration information terminal which exists in the above-mentioned area can grasp that each other has other users near himself at the band between coincidence.

[0008] Invention of claim 2 is characterized by performing the above-mentioned advice in the advice format specified by the above-mentioned user in the communication service approach of claim 1. Moreover, invention of claim 10 is characterized by the above-mentioned advice

information of contiguity being the information for performing the above-mentioned advice in the advice format specified by the user of the above-mentioned migration information terminal in the communication service exchange equipment of claim 9. Here, advice by displaying still pictures and animations, such as a character specified by a user, as the above "an advice format", advice by passing the theme music specified by a user, advice by starting the application program specified by a user, etc. are mentioned. Moreover, "the advice information of contiguity" transmitted to a migration information terminal in order to perform the above-mentioned advice may be information which consists of the data itself, such as the above-mentioned image and voice, and may be the information for choosing any one from two or more image data beforehand registered into the migration information terminal, sound data, application program data, etc., and performing image display, a voice output, program starting, etc.

[0009] With the communication service approach of claim 2, and the communication service exchange equipment of claim 10, since the above-mentioned advice can be performed in the advice format specified by a user, while other users who are near themselves can grasp promptly and easily who it is, for a user besides the above, self-assertion becomes possible.

[0010] In the communication service approach of claim 1, invention of claim 3 is characterized by carrying out by summarizing this advice to these two or more users, when the objects of the above-mentioned advice are two or more users. Moreover, in the communication service exchange equipment of claim 9, when the objects for transmitting of the above-mentioned advice information of contiguity are two or more migration information terminals, invention of claim 11 carries out that the above-mentioned advice information of contiguity transmitting means is constituted as the description so that the above-mentioned advice information of contiguity may be summarized to two or more migration information terminals and it may transmit.

[0011] With the communication service approach of claim 3, and the communication service exchange equipment of claim 11, by notifying collectively to two or more migration information terminals which exist in the above-mentioned area, there is no troublesomeness checked in response to advice for these two or more migration information terminals of every, and the user of the migration information terminal which exists in the above-mentioned area can be grasped efficiently.

[0012] each migration information terminal with which registration of the invention of claim 4 is carried out [above-mentioned] in the communication service approach of claim 1 -- every migration information terminals of other -- or it is characterized by the ability to switch whether the above-mentioned advice about these other migration information terminals is received about these all other migration information terminals. Moreover, invention of claim 12 is set to the communication service exchange equipment of claim 9. So that the advice existence tbe data which specify whether the above-mentioned advice information of contiguity about other migration information terminals is received may be related with the above-mentioned terminal registration information and may be memorized It is characterized by constituting the above-mentioned advice information of contiguity transmitting means so that the above-mentioned information storage means may be constituted and this advice information of contiguity may be selectively transmitted based on these advice existence tbe data.

[0013] a ****** [receiving the above-mentioned advice about other migration information terminals according to each user's hope with the communication service approach of claim 4, and the communication service exchange equipment of claim 12] -- every migration information terminals of other -- or -- these all other migration information terminals -- a switch -- things

are made.
[0014] each migration information terminal with which registration of the invention of claim 5 is carried out [above-mentioned] in the communication service approach of claim 1 -- every migration information terminals of other -- or it is characterized by the ability to switch whether the above-mentioned advice to the user of these other migration information terminals is permitted about these all other migration information terminals. Moreover, invention of claim 13 is set to the communication service exchange equipment of claim 9. So that the advice permission-or-denial tbe data which specify whether transmission of the above-mentioned advice information of contiguity over other migration information terminals is permitted may be related with the above-mentioned terminal registration information and may be memorized It is characterized by constituting the above-mentioned advice information of contiguity transmitting means so that the above-mentioned information storage means may be constituted and this advice information of contiguity may be selectively transmitted based on these advice permission-or-denial tbe data.
[0015] a ****** [permitting the above-mentioned advice to the user of other migration information terminals according to each user's hope with the communication service approach of claim 5, and the communication service exchange equipment of claim 13] -- every migration information terminals of other -- or it can switch about these all other migration information terminals.
[0016] two or more areas of every in which each migration information terminal of the above-mentioned advice with which registration of the invention of claim 6 is carried out [above-mentioned] in the communication service approach of claim 1 is possible -- or a ******
[receiving this advice about other migration information terminals about two or more of these areas of all] -- or it is characterized by the ability to be able to switch whether this advice to these other migration information terminals is permitted. Moreover, invention of claim 14 is set to the communication service exchange equipment of claim 9. two or more areas of every which can transmit the above-mentioned advice information of contiguity -- or about these two or more areas of all At least one side of the advice permission-or-denial tbe data which specify whether transmission of this advice information of contiguity over the advice existence tbe data which specify whether this advice information of contiguity about other migration information terminals is received, and other migration information terminals is permitted Relate with the above-mentioned terminal registration information, and so that it may memorize, and the above-mentioned information storage means may be constituted and this advice information of contiguity may be selectively transmitted based on either [at least] these advice existence tbe data or these advice permission-or-denial tbe data It is characterized by constituting the above-mentioned advice information of contiguity transmitting means.
[0017] a ****** [receiving the above-mentioned advice about other migration information terminals according to each user's hope with the communication service approach of claim 6, and the communication service exchange equipment of claim 14] -- or a ****** [permitting the above-mentioned advice to these other migration information terminals] -- two or more above-mentioned areas of every -- or it can switch about two or more above-mentioned areas of all.
[0018] Invention of claim 7 is characterized by making each user recognize that each migration information terminal by which registration is carried out [above-mentioned] is in the condition that the above-mentioned advice may be given to the user of other migration information terminals in claims 1, 2, 3, 4, and 5 or the communication service approach of 6. Moreover, it

carries out having had an advice condition recognition information transmitting means transmit the advice condition recognition information for making each user recognize that the condition that the above-mentioned advice information of contiguity may be transmitted to other migration information terminals has invention of claim 15 in claims 9, 10, 11, 12, and 13 or the communication-service exchange equipment of 14 to a migration information terminal through a communication line as the description.

[0019] With the communication service approach of claim 7, and the communication service exchange equipment of claim 15, in each migration information terminal, since it can recognize that it is in the condition that the above-mentioned advice may be given to other migration information terminals, it is avoidable that he is given other users the above-mentioned advice about his own migration information terminal in the condition that each user does not recognize.

[0020] Invention of claim 8 is characterized by what is notified in accordance with the connection related information for connecting with other migration information terminals which exist in the above-mentioned area in the case of the above-mentioned advice, and communicating in claims 1, 2, 3, 4, 5, and 6 or the communication service approach of 7. Moreover, invention of claim 16 is set to claims 9, 10, 11, 12, 13, and 14 or the communication service exchange equipment of 15. So that the connection related information for connecting with the above-mentioned migration information terminal, and communicating may be related with the above-mentioned terminal registration information and may be memorized It is characterized by constituting the above-mentioned advice information of contiguity transmitting means so that the above-mentioned information storage means may be constituted and the connection related information for connecting with the migration information terminal which exists in the above-mentioned advice information of contiguity in the above-mentioned area, and communicating may be included. Here, as the above "connection related information", terminal identification numbers, such as a cellular-phone number for performing an exchange of a call and mail between migration information terminals, the e-mail address for exchanging an electronic mail between migration information terminals, etc. are mentioned.

[0021] With the communication service approach of claim 8, and the communication service exchange equipment of claim 16, the communication link with other migration information terminals which exist in the above-mentioned area can be promptly started using the above-mentioned connection related information.

[0022] Invention of claim 17 is a program executed by computer used for the migration information terminal of claims 18, 19, 20, 21, 22, 23, 24, and 25, and is a program for operating this computer as at least one of each of the means in the above-mentioned migration information terminal.

[0023] By including the program of claim 17 in the computer used for the above-mentioned communication service exchange equipment, and executing it, at least one function of each means in the above-mentioned communication service exchange equipment can be performed.

[0024] In addition, delivery of the program concerning invention of above-mentioned claim 17 may be performed using record media which recorded the program as digital information, such as FD and CD-ROM, and may be performed using communication lines, such as a computer network.

[0025]

[Embodiment of the Invention] Hereafter, the gestalt of operation of this invention is explained, referring to a drawing. Drawing 1 is the conceptual diagram showing the framework of the whole communication service approach concerning the operation gestalt of this invention. This

communication service approach is the approach of notifying the user of the portable telephone which exists in the same area of portable telephones being close, when the portable telephone as two or more migration information terminals is registered beforehand and at least two exist in the same area of two or more of these portable telephones registered. Here, the above-mentioned area may be an area which consists of one cel the base station which radiocommunicates with each portable telephone has jurisdiction [cel], and may be an area managed considering two or more adjoining cels as one group. With this operation gestalt, two or more adjoining cels were illustrated about the case of the area managed as one group. Moreover, the above-mentioned area may be an area managed based on the lat/long information acquired by GPS for portable telephones (Global Positioning System: Global Positioning System). This area may be a fixed area beforehand divided uniformly on the map for example, based on lat/long information, and may be an area which has lat/long, the current position (lat/long) to the area, i.e., the current position of a portable telephone, which only a fixed distance left of a portable telephone, and the approximated lat/long. In the case of the area managed on the basis of the current position (lat/long) of a portable telephone, it becomes the dynamic area which changes with migration of a portable telephone.

[0026] Drawing 1 is illustrating about two users of user 10b who use user 10a and portable telephone 60b using portable telephone 60a as a user of a portable telephone. These users' 10a and 10b terminal registration information is registered into communication service exchange equipment 51 as a member belonging to a two-way communication group. It can connect with the cellular-phone communication network 70 as a communication network via the radiocommunication circuit established among the base stations 71a and 71b installed in the area C1, respectively, and each portable telephones 60a and 60b can receive various communication service now. The positional information of in which area C1 and cel each portable telephones 60a and 60b exist Based on the information on a base station that each portable telephone is communicating etc., it is managed by the positional information server which was installed in the cellular-phone communication network and which is not illustrated. It is transmitted to each portable telephones 60a and 60b via the cellular-phone communication network 70 as a communication line from the information offer server which is not illustrated to predetermined timing, and memorizes in each portable telephone. And the positional information of each portable telephones 60a and 60b is periodically transmitted to communication service exchange equipment 51 from each portable telephones 60a and 60b through the cellular-phone communication network 70 as a communication line to predetermined timing, and the positional information of each portable telephone memorized by communication service exchange equipment 51 is updated. When portable telephone 60of other user 10b b moves to the area C1 where portable telephone 60of one user 10a a exists from other areas or cels and comes to exist in it here The advice information of contiguity on a purport that the portable telephones of both users' portable telephone being in the same area C1, i.e., both users, are close is transmitted to each users' 10a and 10b portable telephones 60a and 60b from communication service exchange equipment 51. The users 10a and 10b of each portable telephone are notified by receiving this advice information of contiguity with each portable telephones 60a and 60b. By this advice, each portable telephones 60a and 60b can approach, and each users 10a and 10b can grasp that other users are in the band between coincidence near themselves.

[0027] Drawing 2 and drawing 3 are the outline block diagrams and functional block diagrams of the communication service exchange equipment 51 used for the communication service approach in this operation gestalt, respectively. Communication-service exchange equipment 51

is equipped with the communication device 107 for cellular-phone communication networks for communicating with each user's 10 portable telephone 60 through the output unit 106 which consists of the input device 105 and display which consist of the external storage 104 and the mouse which consist of a system bus 100, internal storage which consists of CPU101, RAM102, or ROM103 grade, a hard disk drive (HDD), an optical disk drive, etc., a keyboard, etc., a printer, etc., and the cellular-phone communication network 70 which consists of a bidirectional communication line as shown in drawing 2 CPU101 and the component of RAM102 grade are exchanging data, an instruction of a program, etc. through the system bus 100 to each other. The program for operating this communication service exchange equipment 51 according to a predetermined procedure is memorized by ROM103 and external storage 104, if needed, is called to the activity area on CPU101 or RAM102, and is performed. Moreover, the above-mentioned communication service exchange equipment 51 may be constituted from one set of a computer system, and may tie and constitute two or more computers which take charge of two or more server ability, respectively from a communication network.

[0028] This communication service exchange equipment 51 has realized each function of the information storage means 501 shown in drawing 3 , the positional information acquisition means 502, the renewal means 503 of positional information, the judgment means 504, and the advice information of contiguity transmitting means 505 by performing a program predetermined in the hardware top shown in drawing 2 .

[0029] The above-mentioned information storage means 501 is constituted using the external storage 104 which consists of a hard disk of the above-mentioned communication service exchange equipment 51 etc. with terminal registration information, such as a handle name of two or more users using a portable telephone 60 which is alike, respectively and is related, and the telephone number The positional information about the area where the portable telephone 60 exists, and the information about the two-way communication group to whom a user belongs are associated, and it is a list of a two-way communication group's members (it is hereafter called a "buddy list".). It has memorized as data.

[0030] The above-mentioned positional information acquisition means 502 is constituted by CPU101 and RAM102 of the above-mentioned communication service exchange equipment 51, and the communication device 107 grade for cellular-phone communication networks, and has the function which receives and acquires the positional information about the area where each user's portable telephone 60 exists through the cellular-phone communication network 70 from each portable telephone, a positional information management server, or an information offer server.

[0031] The above-mentioned renewal means 503 of positional information is constituted by CPU101 of the above-mentioned communication service exchange equipment 51, and RAM102 grade, and has the function which updates the positional information of the portable telephone 60 of the user who has memorized for the above-mentioned information storage means 501 based on the positional information acquired with the above-mentioned positional information acquisition means 502.

[0032] The above-mentioned judgment means 504 is constituted by CPU101 of the above-mentioned communication service exchange equipment 51, and RAM102 grade, and has the function to judge whether at least two exist in the same area of two or more portable telephones belonging to a two-way communication group, based on the positional information within the information storage means 501 updated with the above-mentioned renewal means 503 of positional information.

[0033] The above-mentioned advice information of contiguity transmitting means 504 is constituted by CPU101 and RAM102 of the above-mentioned communication service exchange equipment 51, and the communication device 107 grade for cellular-phone communication networks. When at least two judge with existing in the same area of two or more portable telephones which belong to a two-way communication group with the above-mentioned judgment means 504 It has the function to transmit the advice information of contiguity for notifying a user of portable telephones being close to each user's portable telephone 60 through the cellular-phone communication network 70.
[0034] Drawing 4 and drawing 5 are the outline block diagrams and functional block diagrams of the portable telephone 60 used for the communication service approach of this operation gestalt, respectively. This portable telephone 60 is equipped with the communication device 207 for cellular-phone communication networks for communicating with each user's 10 portable telephone 60, or the above-mentioned communication service exchange equipment 51 through the output unit 205 and the cellular-phone communication network 70 which consist of the input device 204 and liquid crystal display (LCD) which consist of the internal storage and the microphone which consist of a system bus 200, and CPU201, RAM202 and ROM203 grade, various input carbon buttons, etc., a loudspeaker, etc. as shown in drawing 4 . CPU201 and the component of RAM202 grade are exchanging data, an instruction of a program, etc. through the system bus 200 to each other. The program for operating this portable telephone 60 according to a predetermined procedure is memorized by ROM203, if needed, is called to the activity area on CPU201 or RAM202, and is performed.
[0035] The above-mentioned portable telephone 60 has realized each function of the positional information transmitting means 601 shown in drawing 5 , the advice information of contiguity receiving means 602, and the advice means 603 by performing a program predetermined in the hardware top shown in drawing 4 .
[0036] The above-mentioned positional information transmitting means 601 is constituted by CPU201 and RAM202 of a portable telephone 60, and the communication device 207 grade for cellular-phone communication networks, and has the function to transmit the positional information about the area where the portable telephone 60 exists to communication service exchange equipment 51 through the cellular-phone communication network 70.
[0037] The above-mentioned advice information of contiguity receiving means 602 is constituted by CPU201 and RAM202 of a portable telephone 60, and the communication device 207 grade for cellular-phone communication networks, and when at least two of the portable telephones 60 of two or more users belonging to the same two-way communication group exist in the same area, it has the function to receive the advice information of contiguity on a purport that the portable telephone is close, through the pocket communication line 70 from communication service exchange equipment 51.
[0038] The above-mentioned advice means 603 is constituted by CPU201 of a portable telephone 60, the liquid crystal display (LCD) of an output unit 205, the loudspeaker, etc., outputs the advice information of contiguity received with the above-mentioned advice information of contiguity receiving means 602, and has the function which notifies each user of the portable telephone being close. the sound by the specific format of SMAF (Synthetic Music Mobile Application Format) etc. as a method of the above-mentioned advice -- you may be the singing of an easy performance or a sound effect, and the display of the image image of still pictures, such as a specific icon and a downloaded character, or an animation is sufficient. Moreover, you may be starting of application programs, such as specific Java (trademark).

[0039] Drawing 6 is a flow chart which shows an example of the flow of the procedure in the communication service approach in case the number of the portable telephones belonging to the above-mentioned two-way communication group is two, as shown in drawing 1 , the step surrounded as the thin continuous line in drawing 6 is processing with the portable telephones 60a and 60b which Users 10a and 10b use here, and the step surrounded as the thick continuous line is processing with communication service exchange equipment 51. As mentioned above, it registers with the buddy list of [within the information storage means 501 of communication service exchange equipment 51] as a member to whom both the users 10a and 10b belong to a two-way communication group at communication service exchange equipment 51. Moreover, it is transmitted to each portable telephones 60a and 60b through the cellular-phone communication network 70 from the positional information offer server which is not illustrated to predetermined timing, and the positional information of in which area C1 each portable telephones 60a and 60b exist is memorized in each portable telephone.
[0040] The positional information memorized by each portable telephones 60a and 60b is periodically transmitted to communication service exchange equipment 51 from each portable telephones 60a and 60b through the cellular-phone communication network 70 to predetermined timing (step 1).
[0041] Next, communication service exchange equipment 51 receives the positional information transmitted from each portable telephones 60a and 60b, and the data of the buddy list of [within the information storage means 501] are updated (step 2). And it is judged whether two portable telephones 60a and 60b exist in the same area C1 (step 3). Here, if user 10of one portable telephone 60b b moves into an area C1 from the outside of an area C1 as shown in drawing 1 , it will be judged with two sets of portable telephones 60a and 60b existing in the same area C1, and the advice information of contiguity about the portable telephone of the other party will be transmitted to both portable telephones 60a and 60b through the cellular-phone communication network 70, respectively from communication service exchange equipment 51 (step 4).
[0042] Next, if each portable telephones 60a and 60b receive the above-mentioned advice information of contiguity (step 5), while the purport which shows that the portable telephone of the other party is in near based on the received advice information of contiguity is displayed on the display of each portable telephones 60a and 60b, it will be reported by sound information (step 6).
[0043] As mentioned above, according to this operation gestalt, each user can grasp that the users belonging to a two-way communication group are close to the band between coincidence in actual space using the advice information of contiguity outputted from a portable telephone 60. Thus, when the portable telephones of the user belonging to the two-way communication group who consisted of friends etc. exist in the same area, by notifying mutually that it is mutually close, each users can encourage each user's expectations which can meet by chance in unexpected locations, such as an amusement park, an amusement facility, the sea, and a tourist resort, or they can offer the cause of communication of users. Moreover, the sense of security of belonging to the ensemble in usual locations, such as a school and a station, can be given, or existence of it can also be advertized to an associate. Moreover, a function like the tactile sense that the friend who is present in near finds it can also be given to a portable telephone. The new communication service which has the added value using a portable telephone as mentioned above can be offered.
[0044] Moreover, even when the direct acquisition of the positional information of each portable

telephone cannot be carried out from the positional information server installed in a cellular-phone communication network according to this operation gestalt, the positional information of each portable telephone can be received and communication service which notifies the above-mentioned advice information of contiguity to each portable telephone can be performed.
[0045] Moreover, if the positional information of a portable telephone is generally always displayed on other users' portable telephone, the problem of privacy will occur. Moreover, in many cases, the information "the friend who is present in the distantly distant place moved to the next town" is meaningless in many cases. On the other hand, if the above-mentioned advice information of contiguity is transmitted and it is made to notify, only when each portable telephone exists in the same area like this operation gestalt, since it will be only by getting to know that it is in each other in near, the information which is meaningful for minimum amount of information can be acquired, and the interference to privacy can also be managed with the minimum.
[0046] In addition, in the above-mentioned operation gestalt, it may be made to perform transmission to the communication service exchange equipment 51 of the positional information of each portable telephones 60a and 60b, and reception of the advice information of contiguity from communication service exchange equipment 51 to each portable telephones 60a and 60b by one transaction between each portable telephone and communication service exchange equipment 51. In this case, since advice by paging, such as SMS (Short Message System), becomes unnecessary and does not generate new traffic, the utilization effectiveness of a communication line, especially a radiocommunication circuit can be raised.
[0047] Moreover, in the above-mentioned operation gestalt, advice which tells that the advice information of contiguity is outputted from each portable telephone, and the user of the other party is in near may be performed in the advice format specified by the user of the other party. For example, as shown in drawing 7 , the contents storage means 604 which consists of RAM202 etc. is established in a portable telephone 60, and the contents for user discernment of images, such as a character specified by other users and an icon, theme music, a Java (trademark) program, etc. are memorized. And based on the advice information of contiguity received from communication service exchange equipment 51, the specific contents specified by [which was chosen and was read from the contents storage means 604] a user are outputted. Here, as contents for the above-mentioned user discernment, static images and animations, such as a character specified by the user of the other party, an icon, a person, and scenery, a musical piece, etc. are mentioned. Moreover, you may be a Java (trademark) application program for making a portable telephone perform specific actuation. Thus, when it is made to notify in the advice format specified by a user, grasp of other users who are near themselves becomes promptly and easy. Moreover, it can also use as a tool of the self-assertion to other associates by sounding the theme music of the dedication corresponding to a user with a partner's portable telephone, or displaying the image of the dedication corresponding to a user.
[0048] Moreover, when two or more portable telephones of other users exist in the area C1 where portable telephone 60of above-mentioned user 10a a exists, the advice information of contiguity about two or more of the users of other is summarized from portable telephone 60of above-mentioned user 10a a, and you may make it notify it in the above-mentioned operation gestalt. In this case, while being able to grasp two or more users efficiently, the utilization effectiveness of a communication line can be raised.
[0049] every [moreover,] users of other which belong to the above-mentioned two-way communication group in the above-mentioned operation gestalt -- or it enables it to choose

whether the above-mentioned advice information of contiguity is notified about all other users, or you may enable it to choose whether advice of the above-mentioned advice information of contiguity is permitted For example, as shown in drawing 7 , the data input means constituted using the input device 204 which consists of various input carbon buttons etc. is established. and the thing for which a user inputs advice existence tbe data using this data input means, and the advice means 603 is controlled based on these advice existence tbe data -- the need -- responding -- every users of other -- or it can choose whether the above-mentioned advice information of contiguity is transmitted and notified about all other users. For example, in the house neighborhood or an office, it chooses so that transmit the above-mentioned advice information of contiguity and it may not be notified. moreover, transmission of as opposed to the communication service exchange equipment 51 of the positional information of its own portable telephone by a user inputting advice permission-or-denial tbe data using the above-mentioned data input means, and controlling the positional information transmitting means 601 based on these advice permission-or-denial tbe data -- alternative -- carrying out -- making -- every users of other -- or it can choose whether other users are transmitted and notified of the advice information of contiguity about their own portable telephone about all other users. In addition, instead of controlling transmission of positional information based on the above-mentioned advice permission-or-denial tbe data, the above-mentioned advice permission-or-denial tbe data are transmitted to communication service exchange equipment 51, and you may make it control whether other users are transmitted and notified of the advice information of contiguity within communication service exchange equipment 51.

[0050] Moreover, in the above-mentioned operation gestalt, it is desirable to make the user of a portable telephone recognize that it is in the condition that other users may be transmitted and notified of the advice information of contiguity about their own portable telephone. For example, an advice condition information means to report that it is in the condition that the advice information of contiguity may be transmitted and notified is formed in a portable telephone 60. The output unit 205 which consists of a display etc. can constitute this advice condition information means. Thus, since it is avoidable that other users are notified of the advice information of contiguity about their own portable telephone in the condition that each user does not recognize by making the user of a portable telephone recognize that it is in the condition that other users may be notified of the advice information of contiguity about their own portable telephone, each user's privacy can be protected.

[0051] Moreover, you may make it include connection related information, such as a mail address for connecting with other users' migration information terminal, and communicating, the connection address to the chat room only for groups, and the telephone number, in the advice information of contiguity transmitted to each portable telephone in the above-mentioned operation gestalt. In the information storage means 501 of communication service exchange equipment 51, this connection related information relates with user information, memorizes, and is transmitted to each portable telephone together with the above-mentioned advice information of contiguity from the advice information of contiguity transmitting means 505 of communication service exchange equipment 51. By receiving this connection related information with a portable telephone, actuation which sends e-mail, is telephoned or starts a chat with other users to other users who are near themselves can be continuously performed from reception of the above-mentioned advice information of contiguity, and the operability of a portable telephone improves.

[0052]

[Effect of the Invention] According to claim 1 thru/or invention of 17, it can grasp that each other has in near the users of the migration information terminal registered beforehand in actual space at the band between coincidence. therefore, contingent expectation of appeal of one's existence among the users of a migration information terminal, ** encounter, etc., the cause of ** communication, and ** -- there is outstanding effectiveness that communication service with the new added value which can realize a role like the tactile sense that the friend who is the sense of security of being together with everybody, and near the ** finds it etc. can be offered. [**]

[0053] While grasp of other users who are near themselves becomes promptly and easy especially according to invention of claims 2 and 10, there is outstanding effectiveness that the self-assertion to other users can be performed effectively.

[0054] Especially, according to invention of claims 3 and 11, there is outstanding effectiveness that two or more of other users who are near themselves can be grasped efficiently.

[0055] Especially, according to invention of claim 4 6 and 12 thru/or 14, there is outstanding effectiveness that the degree of freedom of setting out about the above-mentioned advice increases.

[0056] Since the advice about its own migration information terminal can avoid being made by other users in the condition that each user does not recognize, especially according to invention of claims 7 and 15, there is outstanding effectiveness that each user's privacy can be protected.

[0057] Since the communication link with other migration information terminals can be especially started promptly using connection related information according to invention of claims 8 and 16, there is outstanding effectiveness that operability until it starts the communication link with other migration information terminals from the above-mentioned advice improves.

[Translation done.]

* NOTICES *

DESCRIPTION OF DRAWINGS

[Brief Description of the Drawings]
[Drawing 1] The conceptual diagram showing the framework of the whole communication service approach using the portable telephone concerning the operation gestalt of this invention.
[Drawing 2] The outline block diagram of the communication service exchange equipment used for this communication service approach.
[Drawing 3] The functional block diagram of this communication service exchange equipment.
[Drawing 4] The outline block diagram of the portable telephone used for this communication service approach.
[Drawing 5] The functional block diagram of this portable telephone.
[Drawing 6] The flow chart which shows the flow of the procedure of this communication service approach.
[Drawing 7] The functional block diagram of the portable telephone concerning a modification.
[Description of Notations]
10 (10a, 10b) User
51 Communication Service Exchange Equipment
60 (60a, 60b) Portable telephone (migration information terminal)
70 Cellular-Phone Communication Network
100 System Bus
101 CPU
102 RAM
103 ROM
104 External Storage
105 Input Unit
106 Output Unit
107 Communication Device for Cellular-Phone Communication Networks
200 System Bus
201 CPU
202 RAM
203 ROM
204 Input Unit
205 Output Unit
207 Communication Device for Cellular-Phone Communication Networks
501 Information Storage Means
502 Positional Information Acquisition Means

503 Renewal Means of Positional Information
504 Judgment Means
505 Advice Information of Contiguity Transmitting Means
601 Positional Information Transmitting Means
602 Advice Information of Contiguity Receiving Means
603 Advice Means
604 Contents Storage Means
605 Data Input Means

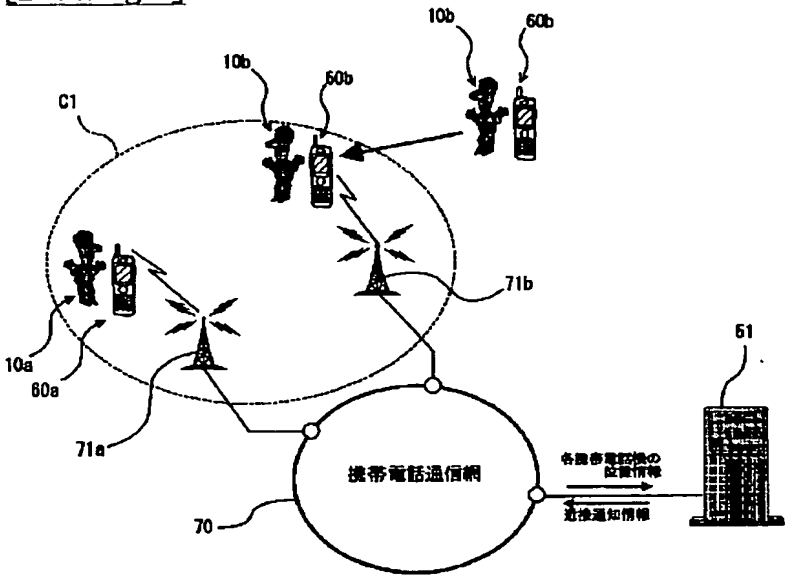
[Translation done.]

* NOTICES *

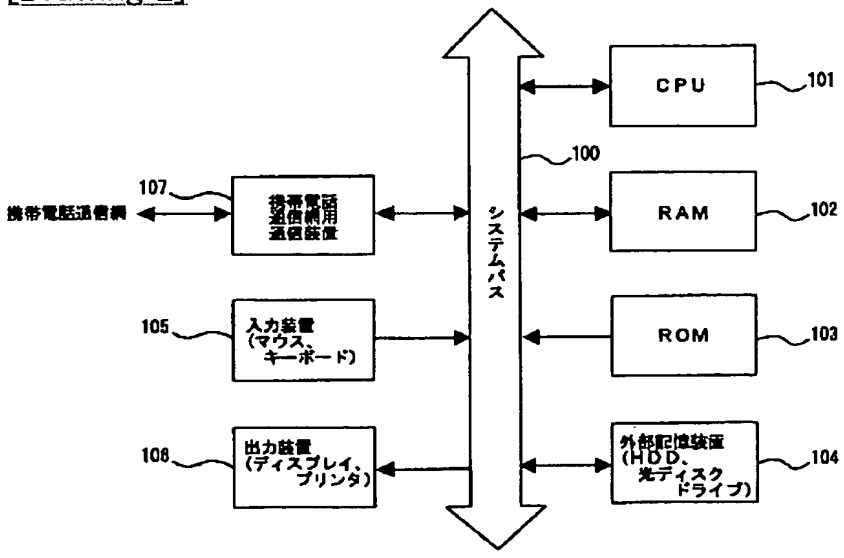
1.This document has been translated by computer. So the translation may not reflect the original precisely.
2.**** shows the word which can not be translated.
3.In the drawings, any words are not translated.

DRAWINGS

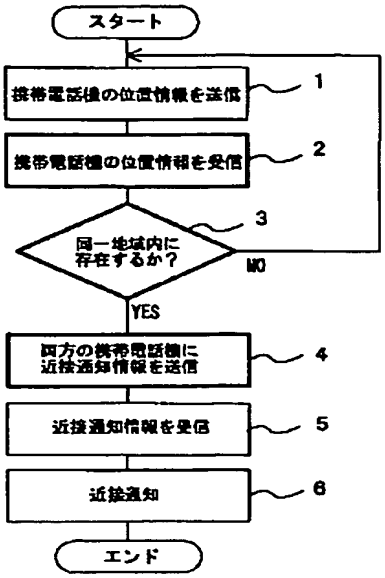
[Drawing 1]



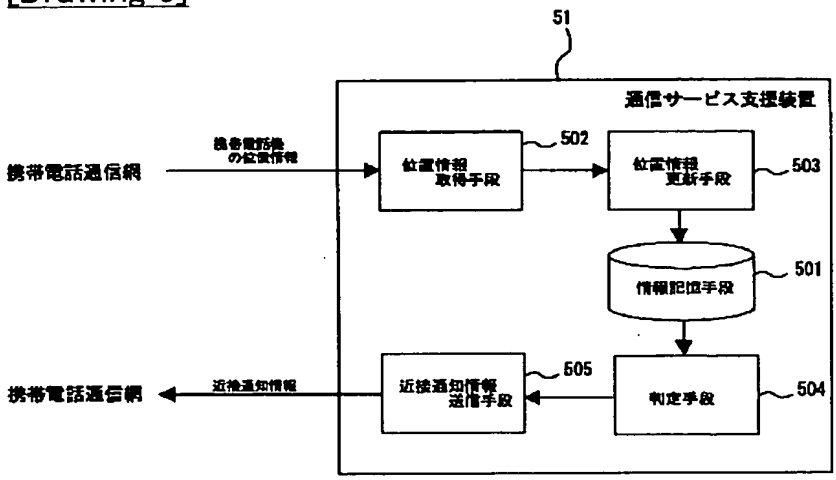
[Drawing 2]



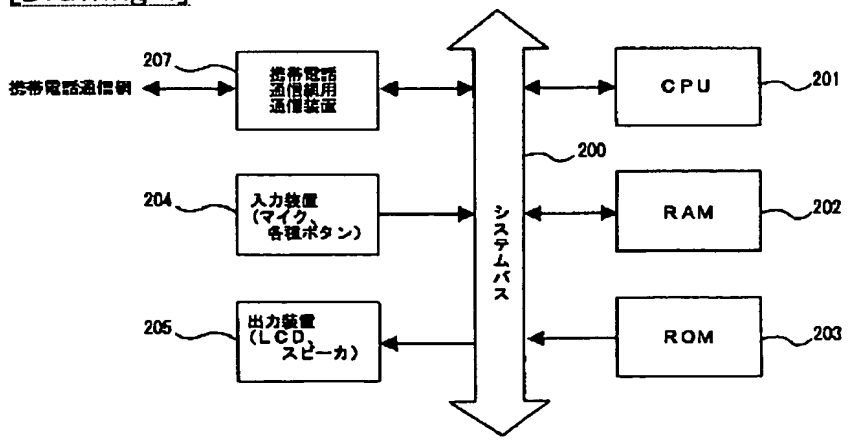
[Drawing 6]



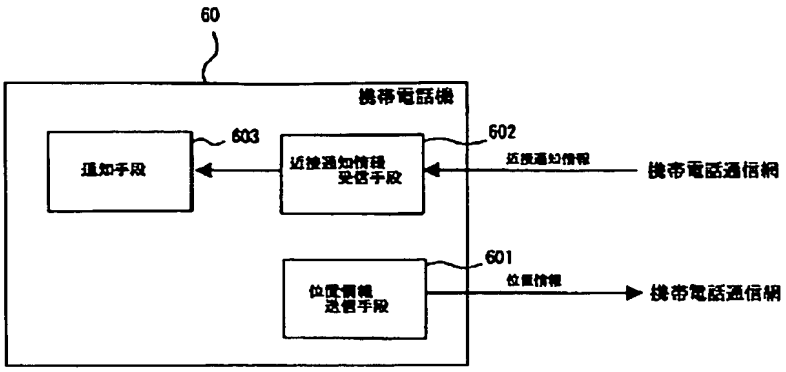
[Drawing 3]



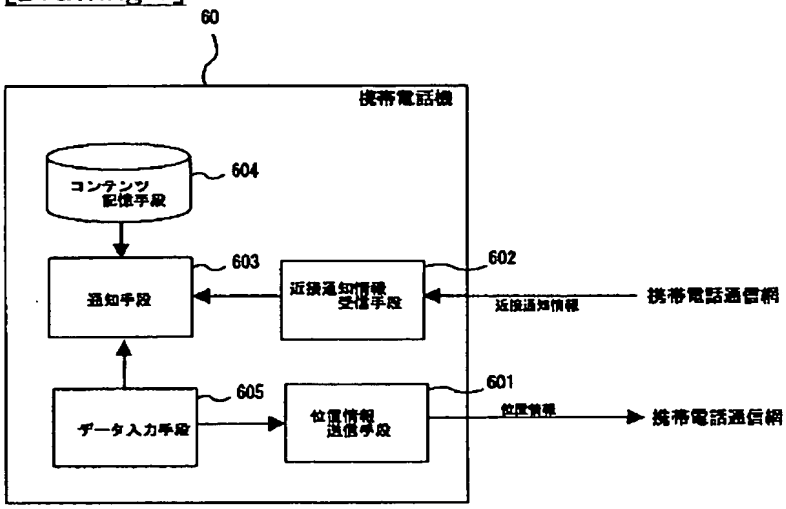
[Drawing 4]



[Drawing 5]



[Drawing 7]



[Translation done.]